

REMARKS

In accordance with 37 CFR § 1.116, Applicant has limited the number of claims at issue to only allowable subject matter over the combination of references applied in the Final Office Action. No new issues are provided and the amendment of our claims both moot the issues raised with regards to Claims 12, 14 and 15 while finding support in the previous dependent claims that have now been cancelled and the subject matter set forth, for example, in Figure 10 and pages 28-29 of our specification.

The Office Action rejected the outstanding claims over a combination of the *Macke et al.* US Patent No. 6,249,784, *Murakami et al.* US Patent Publication No. 2003/0074671, *Kim et al.* US Patent Publication No. 2002/0143760 and the *Ohga* US Patent Publication No. 2002/0073095.

The *Macke et al.* reference is the principle reference but the Office Action acknowledged that the *Macke et al.* reference did not teach search keys categorized in a plurality of fields nor the specific fields of search necessary for searching a complex patent data file. The Examiner relied upon the *Kim et al.* and *Ohga* reference to supplement the assertion that the *Murakami et al.* reference could disclose search keys in a plurality of fields.

The *Macke et al.* reference was designed to address biological data being assembled in the Genobank with specific problems, as follows:

As stated, the complexity of genetic sequence data makes it difficult, if not impossible, to formulate a single database query that will return an acceptable set of relevant results. This is due to a number of factors, including an imprecise understanding of the relationships between sequences and functions, as well as the lack of a standard vocabulary for annotating even well understood sequences.

Col. 17, lines 58-64

* * *

Accordingly, from these considerations, the present invention provides an interactive search style, where an informed user can examine the results of a search stage. The results are then "edited" and used as new keywords for performing one or more subsequent searches. This process can be repeated as often as necessary to obtain a desired result resolution. Typically, this involves removing unwanted Hits and/or combining results of related searches, some of which use new search keys extracted or derived from an earlier search.

Col. 18, lines 5-14

The Genobank database comprises a set of named annotated text strings (NAT) which can consist of the actual recorded sequence data of a genetic sequence. As can be appreciated, Genobank is government funded project to store information derived from various genome projects in one centrally available database. As noted in Column 3, a problem has occurred since this is a relatively new field and there is a lack of consistent scientific terms so that one of the goals of the *Macke et al.* patent is to permit an interactive editing search wherein the user is given the capability of reviewing an initial search result in the form of special Hits and E-Hits. As can be determined, in Column 23 and Column 24, a search is initiated from a particular Hits list usually consisting of unique IDs for referring, for example, to the loci or a particular portion of the Genobank database. The IDs form a field for the search and the first step in the search is simply to retrieve a unique ID associated with a particular locus to center the search, see for example, Figure 14. The search file can rely on basically an index or roadmap of the searchable objects within the associated locus.

Referring to Figure 2, a block diagram of a modular software search engine is disclosed. In this regard, a Search module 10, shown in Figure 2, is modified by search keys input by the user. A result Hits table 11 is then sorted out as the output of the algorithm for the Search

module 10. Another feature of *Macke et al.* is to provide a Context search, as shown in Figure 3, wherein a context Hits list and a target Hits list is utilized to form the context for the search performed by module 14. Search keys are used to describe a relationship between the context Hits list and the target Hits list, for example, to provide certain substrings within a particular distance from a particular target. For further refinement, Figure 4 teaches the utilization of a Select module and an Extract module. The Select module is capable of adding or subtracting annotations from a NAT data set that has been searched by the Search module. The Extract module can extract actual data from a Hits list. The Extract module will permit the user to select further refinements in key words. In performing this search in the Genobank database, the context of what consists of a Hit is based on a unique multi-digit mixed radix identifying number unique to a NAT data set. See, for example, the description from Column 8, line 39 through Column 9, line 17. Reference can also be made to Figure 5 for a graphic description of both the Hit content number and the E-Hit list content.

As should be appreciated, while the *Macke et al.* reference necessarily uses components in the field of searching a database, it is specifically addressing unique characteristics of the Genobank stored information.

Amended Claim 1 of the present application has incorporated features from the former dependent claims and has defined itself accordingly in the field of efficiently searching patent data files. In this regard, frequently used search keys are extracted for each of a plurality of fields including an IPC symbol, an F-term, and key words, from patent data files search results in accordance with an initial search query. The extracted field search keys can then be added as an element of an OR search query for each of the fields to the initial search query so that it can create a new search query. The new search query can be displayed on a screen to the user with

the former search query displayed. Additionally, the derivation of the extracted search keys from these different fields can be collectively displayed adjacent to the search query on the same display to enable the user to easily paste the selected keys from the fields of the IPC, F-term, and selected key words from the patent data files to a new search query. See, for example, the right hand column of Figure 10 of our drawings.

As can be appreciated, the search key lists window 53 can be displayed on the same monitor with the search condition input window 51 and the search result list window 52. In operation, the search key list displaying unit can ascertain a list of the most frequently used search keys for each of the fields, see, for example, Figure 7A through 7C of our drawings, and can display the top five search keys for each of the fields as shown in Figure 10. The user can simply mark corresponding check boxes in the search key list window and can then modify the search conditions to further refine the search efforts.

With tools, such as described in amended Claim 1, a user can easily perform advance searching by using special fields that are known to only expert users of search fields such as an IPC symbol and an F-term. As a result, an improvement in both accuracy, efficiency and speed of a database searching apparatus can be accomplished in an extremely crowded field.

“Thus when differences that may appear technologically minor nonetheless have a practical impact, particularly in a crowded field, the decision-maker must consider the obviousness of the new structure in this light.”

Continental Can Co. USA Inc. v. Monsanto Co., 20 U.S.P.Q. 2d. 1746, 1752 (Fed. Cir. 1991).

The Office Action cited the *Macke et al.* disclosure on Column 6, lines 57-62 as inherently having a receiving step. The Search module, as described above, however, has an

input of a Hits list, a list of search keys and a function of testing whether a search key matches a text referenced by each search hit. As can be appreciated, matching the particular search keys associated with the Hit list shown in Figure 5 relates to a unique multi-digit mixed radix identifying number as mentioned above.

The Office Action further relied upon Column 8, lines 25-28 for the notation that a user can select particular key words when referring to a key selection receiving unit is as follows:

“The user can then edit the display of search results and select particular key words therefrom to be used in performing a subsequent database search.”

Col. 8, lines 24-28 (emphasis added)

As can be readily appreciated, the user, in an interaction mode with the text, is selecting particular key words in a field that has not been indexed because of the nature of the genome projects and a lack of full understanding of this biological database.

It is respectfully submitted that an apparent similarity of technical terms has been overextended in formulating the current rejection since it does not address our amended claim, where a user is presented, by our data searching apparatus, with extracted search keys that can be displayed adjacent an initial search query and thereby permitted to have presented to him/her search keys that would normally only be used by expert users of patent database in the field of IPC symbols and F-terms. Obviously, the nature of a data search in selecting key words from the context of articles or a technical specification, to narrow the search is part of the search of any database in a technical field. A search, however, to address the unique characteristics of a genetic sequence are not applicable to searching patent document files as defined in our current claims.

While *Macke et al.* may describe characteristics unique to the database of the Genobank, this reference does not teach a search key list displaying unit, a key selection receiving unit and a selective searching unit as defined in the current Claim 1, nor does it teach facilitating the ability of a user to paste keys from a plurality of fields grouped together to refine and modify the search in a patent document data file.

As can be appreciated, simply the selection of a key word search based upon documents produced can not only be imprecise but can produce a large number of corresponding files. This can make it extremely difficult if not impossible for the searcher to find the appropriate data file particularly in a complex field. *Macke et al.* discloses a specific approach for the Genobank with unique "Hits" tailored to a representation of the actual genetic sequence.

Applicant's invention as defined in the amended claims can return not only the files that match a key word search but also frequently used search keys in special fields. This is not taught nor suggested in the *Macke et al.* reference. The user then can conveniently select one or more of these field search keys to appropriately refine the search, thus the recited extracting unit and searching unit are not disclosed or suggested by *Macke et al.* since a user of *Macke's* device must parse through search results and individually select particular key words.

As can be appreciated, a patent searcher, particularly a public searcher that must search in areas that he is not an expert in, as a patent examiner would be, would often be unfamiliar with search keys for search fields, let alone researchers and laymen. To have frequently used search keys listed in their appropriate fields such as the International Patent Class and the F-terms can help facilitate the user to search and narrow the search results in addition to his own use of picking particular words from contents of the patent documents as also a search key.

The Federal Circuit has held that a person of ordinary skill in the art must not only have had some motivation to combine the prior art teachings, but some motivation to combine the prior art teachings in the particular manner claimed. *See, e.g., In re Kotzab*, 217 F.3d 1365, 1371 (Fed. Cir. 2000) (“Particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination *in the manner claimed.*” (emphasis added)); *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998) (“In other words, the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination *in the manner claimed.*” (emphasis added)).

The *Murakami et al.* reference was directed to an interactive presentation of data associated with a video broadcast wherein a target area could be placed upon an image of a person or thing in the broadcast and ancillary information, such as where you could buy the skirt worn by the actress, could be identified and provided.

The *Kim et al.* US Patent Publication 2002/0143760 disclosed a system and method for categorizing and storing search results in a corporate/research environment. In this regard, the *Kim et al.* reference recognized that a search conducted in a patent database could be further distributed within an organization to make it available to a large audience. *Kim et al.* utilized a purported IP information analyzing unit to extract information from the search results and to store information which can be collated and provided in a set format to designate recipients or in general to a research center analyzing unit. Undesirable files could be deleted and refinements can be made to build up a specialized data source and information including ranking the IP information discovered. This format permits an exchange of opinions on the IP information and

to increase it's utilization, for example, by creating patent maps by the accumulation of the analysis data.

The *Ohga* US Patent Publication 2002/0073095 basically establishes that there has been, in the Japanese patent system, a development of a more detailed or classified definition of specific technical fields within the International Patent Classification system. These File Forming Terms or F-terms can be utilized in assisting a patent search.

The *Kim et al.* reference recognizes the use of an international patent classification system and the *Ohga* reference recognizes a further refinement in the use of F-terms. The *Murakami et al.* seeks to provide a commercial interactive broadcasting system to facilitate exploiting the sale of products relative to the objects and clothing shown in a video broadcast.

There is no teaching of a motivation, other than the present application, for a person of ordinary skill in this field, at the time of our invention, to combine each of these references to render obvious our present claims. The rejection on obviousness grounds cannot be sustained by a conclusory statement since there must be some articulated reasoning with a rational underpinning to support a legal conclusion of obviousness. Searching the Genobank and its extremely specialized characteristics would not suggest to someone to seek an IPC classification system or a Japanese F-term index for combining the same with an interactive sales tool for video broadcasting.

While it is recognized that similar problems can be driving factor, it is respectfully submitted that when four reference must be combined and still fail to teach the features of our present claims that patentable subject matter exists in a relatively crowded field. Accordingly, Applicant requests reconsideration.

Even, if hypothetically, the prior art may be modified in the manner suggested by the Office Action does not make the modification obvious unless the prior art suggests the desirability of the modification. In re Fritch, 23 USPQ 2d 1780, 1783-84 (Fed. Cir. 1992).

[T]he level of skill in the art is a prism or lens through which a judge or jury views the prior art and the claimed invention. This reference point prevents these deciders from using their own insight or, worse yet, hindsight, to gauge obviousness. Rarely, however, will the skill in the art component operate to supply missing knowledge or prior art to reach an obviousness judgment. Skill in the art does not act as a bridge over gaps in substantive presentation of an obviousness case, but instead supplies the primary guarantee of objectivity in the process. *Al Site Corp. v. VSI International, Inc.*, 50 U.S.P.Q.2d 1161 (Fed. Cir. 1999) (citations omitted).

The Federal Circuit has addressed this issue in the case of *In re Rouffet*, 47 U.S.P.Q.2d 1453, 149 F.3d 1350 (Fed. Cir. 1998). In *Rouffet*, the Court noted that virtually all inventions are combinations of old elements. It concluded that:

an examiner may often find every element of a claimed invention in the prior art. If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be 'an illogical and inappropriate process by which to determine patentability.' *Id.* at 1357.


The Court pointed to the absence of any teaching in the cited references for making the proposed modifications, and found that the Board had reversibly erred in determining that the invention was rendered obvious because there was no identification of motivation to choose the selected feature.

These legal guidelines should be applicable to our amended claims and the present case should be allowed.

If the Examiner believes that a telephone conference will assist in the prosecution of this matter the undersigned attorney can be contacted at the listed telephone number.

Very truly yours,

SNELL & WILMER L.L.P.



Joseph W. Price
Registration No. 25,124
600 Anton Boulevard, Suite 1400
Costa Mesa, California 92626-7689
Telephone: (714) 427-7420
Facsimile: (714) 427-7799